RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/7/3, 3+3/4Source: 10/7/3, 3+3/4Date Processed by STIC: 2-1/6-0

ENTERED



OWR T

RAW SEQUENCE LISTING DATE: 02/16/2005 PATENT APPLICATION: US/10/713,578A TIME: 16:20:22

Input Set : A:\124263-1006_US10.713578 SEQUENCE LISTING.ST25.txt Output Set: N:\CRF4\02162005\J713578A.raw

```
3 <110> APPLICANT: Awasthi, Sanjay
         Singhal, Sharad S.
 6 <120> TITLE OF INVENTION: Liposomes For Protection Against Toxic Compounds
 8 <130> FILE REFERENCE: 124263-1006
10 <140> CURRENT APPLICATION NUMBER: US 10/713,578A
11 <141> CURRENT FILING DATE: 2003-11-13
13 <150> PRIOR APPLICATION NUMBER: 60/425,814
14 <151> PRIOR FILING DATE: 2002-11-13
16 <160> NUMBER OF SEQ ID NOS: 2
18 <170> SOFTWARE: PatentIn version 3.3
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 655
22 <212> TYPE: PRT
23 <213> ORGANISM: artificial sequence
25 <220> FEATURE:
26 <223> OTHER INFORMATION: recombinant protein expressed in E. coli
28 <400> SEQUENCE: 1
30 Met Thr Glu Cys Phe Leu Pro Pro Thr Ser Ser Pro Ser Glu His Arg
34 Arg Val Glu His Gly Ser Gly Leu Thr Arg Thr Pro Ser Ser Glu Glu
                                   25
38 Ile Ser Pro Thr Lys Phe Pro Gly Leu Tyr Arg Thr Gly Glu Pro Ser
           35
                               40
42 Pro Pro His Asp Ile Leu His Glu Pro Pro Asp Tyr Val Ser Asp Asp
46 Glu Lys Asp His Gly Lys Lys Lys Gly Lys Phe Lys Lys Lys Glu Lys
                       70
47 65
                                           75
50 Arg Thr Glu Gly Tyr Ala Ala Phe Gln Glu Asp Ser Ser Gly Asp Glu
                   85
54 Ala Glu Ser Pro Ser Lys Met Lys Arg Ser Lys Gly Ile His Val Phe
55
                                   105
58 Lys Lys Pro Ser Phe Ser Lys Lys Lys Glu Lys Asp Phe Lys Ile Lys
59
           115
                               120
62 Glu Lys Pro Lys Glu Glu Lys His Lys Glu Glu Lys His Lys Glu Glu
                           135
                                                140
66 Lys His Lys Glu Lys Lys Ser Lys Asp Leu Thr Ala Ala Asp Val Val
                       150
                                           155
70 Lys Gln Trp Lys Glu Lys Lys Lys Lys Lys Pro Ile Gln Glu Pro
                                        170
                   165
74 Glu Val Pro Gln Ile Asp Val Pro Asn Leu Lys Pro Ile Phe Gly Ile
75
               180
                                   185
78 Pro Leu Ala Asp Ala Val Glu Arg Thr Met Met Tyr Asp Gly Ile Arg
                               200
```

195

RAW SEQUENCE LISTING DATE: 02/16/2005
PATENT APPLICATION: US/10/713,578A TIME: 16:20:22

Input Set: A:\124263-1006_US10.713578 SEQUENCE LISTING.ST25.txt
Output Set: N:\CRF4\02162005\J713578A.raw

82 Leu Pro Ala Val Phe Arg Glu Cys Ile Asp Tyr Val Glu Lys Tyr Gly 215 86 Met Lys Cys Glu Gly Ile Tyr Arg Val Ser Gly Ile Lys Ser Lys Val 230 235 90 Asp Glu Leu Lys Ala Ala Tyr Asp Arg Glu Glu Ser Thr Asn Leu Lys 250 245 94 Asp Tyr Glu Pro Asn Thr Val Ala Ser Leu Leu Lys Gln Tyr Leu Arg 265 260 98 Asp Leu Pro Glu Asn Leu Leu Thr Lys Glu Leu Met Pro Arg Phe Glu 99 275 280 285 102 Glu Ala Cys Gly Arg Thr Thr Glu Thr Glu Lys Val Gln Glu Phe Gln 295 106 Arg Leu Leu Lys Arg Leu Pro Glu Cys Asn Tyr Leu Leu Ile Ser Trp 310 110 Leu Ile Val His Met Asp His Val Ile Ala Lys Glu Leu Glu Thr Lys 325 111 330 114 Met Asn Ile Gln Asn Ile Ser Ile Val Leu Ser Pro Thr Val Gln Ile 345 118 Ser Asn Arg Val Leu Tyr Val Phe Phe Thr His Val Gln Glu Leu Phe 119 355 360 365 122 Gly Asn Val Val Leu Lys Gln Val Met Lys Pro Leu Arg Trp Ser Asn 375 126 Met Ala Thr Met Pro Thr Leu Pro Glu Thr Gln Ala Gly Ile Lys Glu 395 390 130 Glu Ile Arg Arg Gln Glu Phe Leu Leu Asn Cys Leu His Arg Asp Leu 405 410 134 Gln Gly Gly Ile Lys Asp Leu Ser Lys Glu Lys Arg Leu Trp Glu Val 425 420 138 Gln Arg Ile Leu Thr Ala Leu Lys Arg Lys Leu Arg Glu Ala Lys Arg 440 142 Gln Glu Cys Glu Thr Lys Ile Ala Gln Glu Ile Ala Ser Leu Ser Lys 455 146 Glu Asp Val Ser Lys Glu Glu Met Asn Glu Asn Lys Glu Val Ile Asn 470 475 150 Ile Leu Leu Ala Gln Glu Asn Glu Ile Leu Thr Glu Gln Glu Leu 485 490 154 Leu Ala Asn Glu Gln Phe Leu Arg Arg Gln Ile Ala Ser Glu Lys Glu 500 505 158 Glu Ile Glu Arg Leu Arg Ala Glu Ile Ala Glu Ile Gln Ser Arg Gln 515 520 162 Gln His Gly Arg Ser Glu Thr Glu Glu Tyr Ser Ser Glu Ser Glu Ser 535 166 Glu Ser Glu Asp Glu Glu Glu Leu Gln Ile Ile Leu Glu Asp Leu Gln 170 Arg Gln Asn Glu Glu Leu Glu Ile Lys Asn Asn His Leu Asn Gln Ala 565 570 174 Ile His Glu Glu Arg Glu Ala Ile Ile Glu Leu Arg Val Gln Leu Arg 585 178 Leu Leu Gln Met Gln Arg Ala Lys Ala Glu Gln Gln Ala Gln Glu Asp

RAW SEQUENCE LISTING

DATE: 02/16/2005 PATENT APPLICATION: US/10/713,578A TIME: 16:20:22

Input Set: A:\124263-1006 US10.713578 SEQUENCE LISTING.ST25.txt

Output Set: N:\CRF4\02162005\J713578A.raw

```
179
            595
                                600
182 Glu Glu Pro Glu Trp Arg Gly Gly Ala Val Gln Pro Pro Arg Asp Gly
                            615
        610
186 Val Leu Glu Pro Lys Ala Ala Lys Glu Gln Pro Lys Ala Gly Lys Glu
187 625
                        630
                                            635
190 Pro Ala Lys Pro Ser Pro Ser Arg Asp Arg Lys Glu Thr Ser Ile
                    645
                                        650
194 <210> SEQ ID NO: 2
195 <211> LENGTH: 1974
196 <212> TYPE: DNA
197 <213> ORGANISM: artificial sequence
199 <220> FEATURE:
200 <223> OTHER INFORMATION: human bone marrow cDNA library
202 <400> SEQUENCE: 2
203 atgactgagt gcttcctgcc ccccaccagc agccccagtg aacaccgcag ggtggagcat
                                                                           60
205 ggcagcgggc ttacccggac ccccagctct gaagagatca gccctactaa gtttcctgga
                                                                          120
                                                                          180
207 ttgtaccgca ctggcgagcc ctcacctccc catgacatcc tcatgagcct cctgatgtag
                                                                          240
209 tgtctqatga tgagaaagat catgggaaga aaaaagggaa atttaagaaa aaggaaaaga
                                                                          300
211 ggactgaagg ctatgcagcc tttcaggaag atagctctgg agatgaggca gaaagtcctt
213 ctaaaatgaa gaggtccaag ggaatccatg ttttcaagaa gaagcccagc ttttctaaaa
                                                                          360
                                                                          420
215 agaaggaaaa ggattttaaa ataaaagaga aacccaaaga agaaaagcat aaagaagaaa
                                                                          480
217 gcacaaagaa gaaaaacata aagagaagaa gtcaaaaagac ttgacagcag ctgatgttgt
                                                                          540
219 taaacagtqq aaggaaaaga agaaaaagaa aaagccaatt caggagccag aggtgcctca
                                                                          600
221 gattgatgtt ccaaatctca aacccatttt tggaattcct ttggctgatg cagtagagag
223 gaccatgatg tatgatggca ttcggctgcc agccgttttc cgtgaatgta tagattacgt
                                                                          660
225 agagaagtat ggcatgaagt gtgaaggcat ctacagagta tcaggaatta aatcaaaggt
                                                                          720
                                                                          780
227 gqatqaqcta aaaqcaqcct atgaccggga ggagtctaca aacttggaag actatgagcc
                                                                          840
229 taacactgta gccagtttgc tgaagcagta tttgcgagac cttccagaga atttgcttac
                                                                          900
231 caaagagett atgeceagat ttgaagagge ttgtgggagg accaeggaga ctgagaaagt
                                                                          960
233 gcaggaattc cagcgtttac tcaaagaact gccagaatgt aactatcttc tgatttcttg
                                                                         1020
235 gctcattgtg cacatggacc atgtcattgc aaaggaactg gaaacaaaaa tgaatataca
                                                                        .1080
237 gaacatttct atagtgctca gcccaactgt gcagatcagc aatcgagtcc tgtatgtgtt
239 tttcacacat gtgcaagaac tctttggaaa tgtggtacta aagcaagtga tgaaacctct
                                                                         1140
241 gcgatggtct aacatggcca cgatgcccac gctgccagag acccaggcgg gcatcaagga
                                                                         1200
243 ggagatcagg agacaggagt ttcttttgaa ttgtttacat cgagatctgc agggtgggat
                                                                         1260
                                                                         1320
245 aaaggatttg tctaaagaag aaagattatg ggaagtacaa agaattttga cagccctcaa
                                                                         1380
247 aaqaaaactg agagaagcta aaagacagga gtgtgaaacc aagattgcac aagagatagc
                                                                         1440
249 cagtctttca aaagaggatg tttccaaaga agagatgaat gaaaatgaag aagttataaa
                                                                         1500
251 tattctcctt gctcaggaga atgagatcct gactgaacag gaggagctcc tggccatgga
                                                                         1560
253 gcaqtttctq cqccqqcaqa ttgcctcaga aaaagaagag attgaacgcc tcagagctga
255 gattgctgaa attcagagtc gccagcagca cggccgaagt gagactgagg agtactcctc
                                                                         1620
                                                                         1680
257 cqaqaqcqaq aqcqaqaqtq aggatgaqga ggaqctqcaq atcattctgg aagacttaca
                                                                         1740
259 gagacagaac gaagagctgg aaataaagaa caatcatttg aatcaagcaa ttcatgagga
                                                                         1800
261 gegegaggee atcategage tgegegtgea getgeggetg etceagatge agegageeaa
                                                                         1860
263 ggccgagcag caggcgcagg aggacgagga gcctgagtgg cgcgggggtg ccgtccagcc
                                                                         1920
265 gcccagagac ggcgtccttg agccaaaagc agctaaagag cagccaaagg caggcaagga
                                                                         1974
267 gccggcaaag ccatcgcca gcagggatag gaaggagacg tccatctgad aasv
```

VERIFICATION SUMMARY

DATE: 02/16/2005

PATENT APPLICATION: US/10/713,578A

TIME: 16:20:23

Input Set: A:\124263-1006_US10.713578 SEQUENCE LISTING.ST25.txt
Output Set: N:\CRF4\02162005\J713578A.raw